

**WHAT IS CLAIMED IS:**

1. A plasmid capable of expressing a heterologous protein in a plant that  
5 encodes bovine lysozyme.
2. The plasmid of claim 1 comprising SEQ ID NO:1.
3. The plasmid of claim 1 or 2 having the sequence SEQ ID NO:3.
- 10 4. The plasmid of claim 3 identified as ATCC Dep. No. PTA-2599.
5. A recombinant RNA plant virus comprising a nucleotide sequence  
encoding bovine lysozyme.
- 15 6. The plant virus of claim 5 comprising SEQ ID NO:1.
7. An RNA molecule comprising:
  - (a) a first viral subgenomic promoter;
  - (b) a second viral subgenomic promoter; and
  - (c) a bovine lysozyme coding sequence under control of either the  
first or the second subgenomic promoter.
- 20 8. The RNA molecule of claim 7 wherein the coding sequence is SEQ ID  
NO:1.
9. A recombinant tobamovirus comprising a nucleotide sequence encoding  
bovine lysozyme.
- 30 10. The tobamovirus of claim 9 wherein the lysozyme coding sequence is  
SEQ ID NO:1.

11. A method of producing bovine lysozyme, comprising:

- (a) infecting a host plant with an RNA plant virus comprising a nucleotide sequence encoding bovine lysozyme;
- (b) allowing the virus to infect the plant systemically;
- (c) harvesting plant material; and
- (d) isolating from said harvested plant material bovine lysozyme, thereby producing said bovine lysozyme.

5